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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION III
841 Chestnut Building
Philadelphia, Pennsylvania 19107

SUBJECT: Hydrogeologic Evaluation of Saegertown Borough Site - Hughson Chemical

DATE: AUG 11 1988

FROM:
Michael Towle, Hydrogeologist
PA CERCLA Remedial Enforcement Section

TO:
Wilbur Martinez, Remedial Project Manager
PA CERCLA Remedial Enforcement

Per your request I have reviewed the Preliminary Assessment for the Hughson Chemical Company Site (PA #1542) and evaluated the potential contribution this site may have had on the current or past contamination of the Saegertown Borough Well Field.

In a previous memo to you (Feb. 23, 1988) I suggested that "There are three obviously separate sites in the Saegertown area which are currently, have in the past, or may in the future impact the aquifer beneath Saegertown". I further stated that "The Hughson Chemical Site may be chemically separated from the other two". Technically, the pumping radius of each of the Borough's wells or the combined cone of influence created by the wells under pumping conditions could extend beneath all of the sites. Thus, each of the three sites could contribute contamination to the aquifer and the Borough well field. From a ground-water contamination viewpoint, the three sites should be treated as one until ground-water dynamics and the influence of Saegertown's wells are established.

There are of course difficulties involved with combining three sites into one site. The Hughson Chemical Site (Lord) could probably be isolated for the following reasons:

1) The contaminants released at this site are somewhat different than those found at high levels in Borough Well No. 2. Xylene is a primary contaminant found at Hughson, but not in the Borough well. It should be noted however that TCE may also be a contaminant attributable to Hughson;

2) the general flow of ground water in the Saegertown area is east to west or north to south. Under non-pumping conditions, groundwater and contaminants originating at Hughson should not flow in the direction of the Borough wells; and,

3) Borough Well No. 3 (located 1,520 feet east of the site) is the closest Borough water supply to the site and it is not contaminated with chemicals similar to those found at Hughson.

Based upon my review of the available data, I believe that the Houghson Chemical Site is a source of contamination to the aquifer, but without more detailed hydrogeologic testing it appears that the site should not be a primary source of contaminants to the Saegertown Well field. The transmissivity of the glacial aquifer is high so the radius of influence of the pumping well field should not be large enough to include the Hughson Site. Chemical information and comparison between Borough well water and the Hughson outfall suggests that the types and amounts of chemicals found in these two areas are different.